

# PERFLUOROALKYL SUBSTITUTED ALKYL CARBOXYLIC ACID

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## Abstract of JP56169666

**NEW MATERIAL:** The titled compound of formula I' [Rf is 2-20C perfluoroalkyl; R is H, alkyl or aryl; R<1>, R<2>, R<3> and R<4> are H, (substituted)alkyl or (substituted) aryl; m is an integer 0-2; n is 0 or 1].

**EXAMPLE:** Heptadecafluoro-n-octylthioacetic acid.

**USE:** A modifying agent for cephalosporin, a surfactant and a textile treating agent, e.g. capable of giving 7-pentafluoroethylthioacetamido-3- (1-methyl-1H-tetrazol-5-yl) thiomethyl-3-cephem-4-carboxylic acid having an antimicrobial activity against various bacteria.

**PROCESS:** A compound of formula II (X is halogen, etc.) is reacted with a compound of formula III to give a compound of formula I', which is then oxidized to afford the compound of formula I".

